

## About the Authors

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Professor Bars is a leading expert in symmetries in physics, which he applies in much of his research on particle physics, field theory, string theory, and mathematical physics in over 200 papers. He is the author of a book on “*Quantum Mechanics*” and co-editor of the books “*Symmetry in Particle Physics*” and “*Strings’95, Future Perspectives in String Theory*.” Some of his experimentally successful physics predictions include supersymmetry in large nuclei with even/odd numbers of nucleons, and the weak interaction contribution to the anomalous magnetic moment of the muon, in the context of the quantized standard model, that was confirmed after 30 years. His contributions to the mathematics of supersymmetry are extensively used in several branches of physics and mathematics.

His current interests include string field theory and two-time physics which he originated in 1998. In 2006 he established that all the physics we know today, as embodied in principle in the standard model of particles and forces, is better described by a 2-time field theory in 4-space and 2-time dimensions projected as a shadow on an emergent 3-space and 1-time dimensions. His honors include Fellow of the American Physical Society, the First Award in the Gravity Research Foundation essay contest (shared with Chris Pope), Outstanding Junior Investigator Award by the Department of Energy, and the A. P. Sloan Foundation Fellowship.

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